PRODUCT MANAGER

IMS

INTELLIGENT MUNITIONS SYSTEM

NETWORKED MUNITIONS

"Network Munitions redefine how we shape terrain and protect the force."

PM CCS

PROJECT MANAGER CLOSE COMBAT SYSTEMS

BATTLEGROUND DOMINANCE

What will it take to **empower frontline Soldiers** with intelligence information to **minimize risk** while enhancing their operational effectiveness?

The **Scorpion** is one answer.

Currently in development and managed by the Project Manager Close Combat Systems' Product Manager Intelligent Munitions Systems (PM IMS), Scorpion combines **detailed battlefield intelligence with precision munitions** to precisely attack targets ranging from light-wheeled to heavy-tracked vehicles. The Scorpion can sense enemy presence, collect battlefield data, relay it to an operator and **support full-spectrum operations** in both tactical and urban terrain. It also provides scalable anti-handling capabilities to prevent system tampering proving that Networked Munitions redefine how we shape terrain and protect the force.

In February 2009, the Scorpion program conducted a third **"user jury,"** placing real prototype systems in the hands of **Soldiers from the 1st Engineer Brigade, Ft. Leonard Wood, MO and 1st Brigade, 1st Infantry Division, Ft. Riley, KS** respectively. They were **trained on Scorpion** and subjected to a number of different operational scenarios including night operations. To ensure Soldiers have a significant edge on the battlefield, PM IMS will incorporate Soldier feedback to make changes that **enhance Scorpion's capabilities.**

SCORPION

Scorpion (formerly known as the Intelligent Munitions System) is a system of munitions; sensors and communication devices that can implement obstacles to assure maneuver commanders retain freedom of action, can protect forces on the battlefield and enable assured mobility operations. Scorpion operators maintain positive control of the munitions using a wireless control station and can attack targets using automatic or manual engagement modes. The system can be employed as a single munition or multiple munitions field that shares target information to enable sensor fusion, thus enhancing the capability to engage targets. The Scorpion combines detailed battlefield intelligence with precision munitions to precisely attack targets ranging from light-wheeled to heavy-tracked vehicles. It also provides scalable anti-handling capabilities to prevent system tampering, and supports full-spectrum operations in both tactical and urban terrain.

NETWORKED MUNITIONS

Networked Munitions draw on revolutionary technology to help create an "intelligent battlefield." Remotely controlled and rapidly emplaced, these munitions provide ground-based countermobility and protection capabilities through persistent surveillance and the scalable application of lethal and non-lethal means.

SPIDER

Spider is an alternative to persistent antipersonnel (AP) landmines and the first of the networked munitions to be fielded. The AP munition was developed to protect friendly forces and shape the battlefield while minimizing risk to friendly troops and noncombatants. The system's Munition Control Unit (MCU) is fitted with six munitions launchers, each covering a sector of 60 degrees. On operator command, the Spider autonomously deploys trip wires corresponding to each sector. When the trip wire is activated, a signal is sent from the MCU to the Remote Control Unit (RCU) where an operator decides whether to detonate the grenades or take other action. Spider can be recovered and replenished after an engagement and deactivated on command to enable safe recovery or passage of friendly forces. Spider meets National Landmine Policy by incorporating self-destructing/self-deactivating capability and enhanced control mechanisms, and by developing and fielding a landmine alternative prior to 2010.

VOLCANO MULTIPLE DELIVERY MINE SYSTEM

The Volcano is a mass scatterable mine delivery system that delivers mines by helicopter or ground vehicle. It enables tactical commanders to emplace antitank (AT)/AP or pure AT minefields with a minimum of personnel. A Soldier-selectable, self-destruct mechanism destroys the mine at the end of its active lifecycle – 4 hours to 15 days – depending on the time selected. Using a ground vehicle, a 1,000-meter minefield can be laid in 4 to 12 minutes based on terrain and vehicle speed. A helicopter can complete the mission in 20 seconds. Advantages of this system include faster response, increased lethality, greater efficiency and enhanced safety.

M18A1 CLAYMORE

The M18A1 Claymore is a directional fragmentation munition designed to fire metal balls (shrapnel) out to about 100 meters across a 60-degree arc in front of the device, which stands just off the ground. It is remotely detonated using an electric or non-electric initiation system and is used to deter enemy pursuit, establish perimeter defenses and conduct ambushes.

M93 HORNET WIDE AREA MUNITION (WAM)

The WAM is the U.S. Army's first man-portable, top attack, smart munition that detects, classifies, tracks, attacks and defeats enemy tracked vehicles that move within its engagement range of 100 meters. It is used to protect perimeters, reinforce light forces, protect flanks during attacks, and to deny enemy withdrawal, linkup, or access to support-by-fire positions.

M131 MODULAR PACK MINE SYSTEM (MOPMS)

MOPMS is a man-portable AT/AP mine system with command detonation capability. It weighs 165 pounds and contains a mix of 17 magnetically fuzed AT mines and four AP mines. Its 4-hour self-destruct command can be recycled three times or command detonated by remote control. The RCU can control up to 15 MOPMS dispensers from a distance of 300 to 1,000 meters. The munition is well suited as a protective obstacle for light forces but can be used for tactical purposes as well.

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